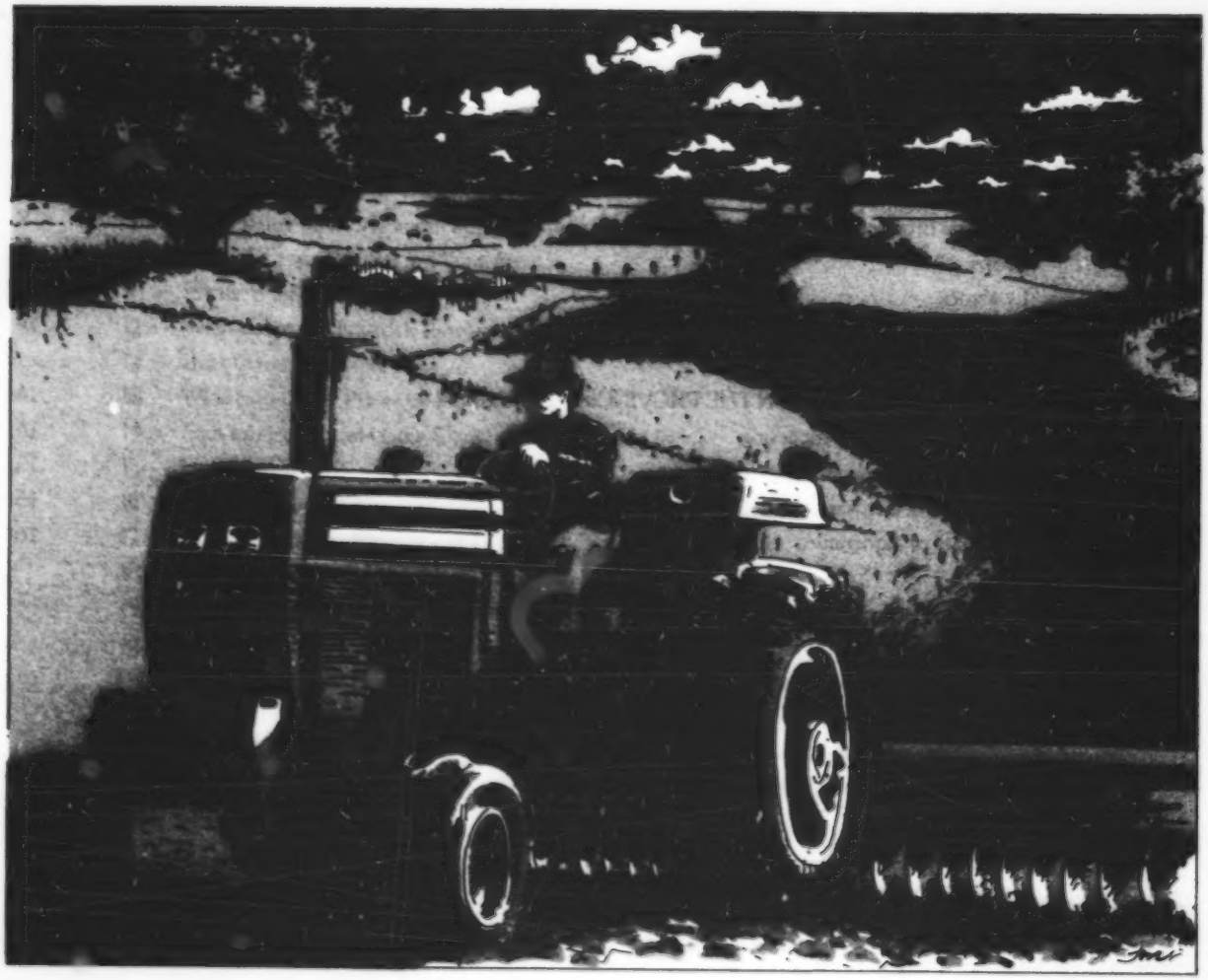
Manitoba Agricultural Review 1987



Manitoba
Agriculture
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DATA SOURCES: Agriculture Canada
Farm Credit Corporation
Manitoba Agricultural Credit Corporation
Manitoba Agriculture
Manitoba Bureau of Statistics
Manitoba Hydro
Statistics Canada

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MANITOBA AGRICULTURAL REVIEW

INTRODUCTION

The major focus of this publication is on primary agriculture. However, farming obviously cannot exist in isolation. It is an integral part of the total agriculture-food system which also includes manufacturing, processing, transportation, distribution and wholesale/retail trade. Agriculture makes an important contribution to Manitoba's overall economic activity, both in its production and consumption. Between 1983 and 1987, agriculture and related industries contributed an average of 13.4 per cent to the provincial Gross Domestic Product (GDP). In Manitoba, one job in seven depends on agricultural production. In addition to stimulating employment locally, agriculture in Manitoba is directly responsible for about 27,000 jobs in other parts of Canada.

PRIMARY AGRICULTURE

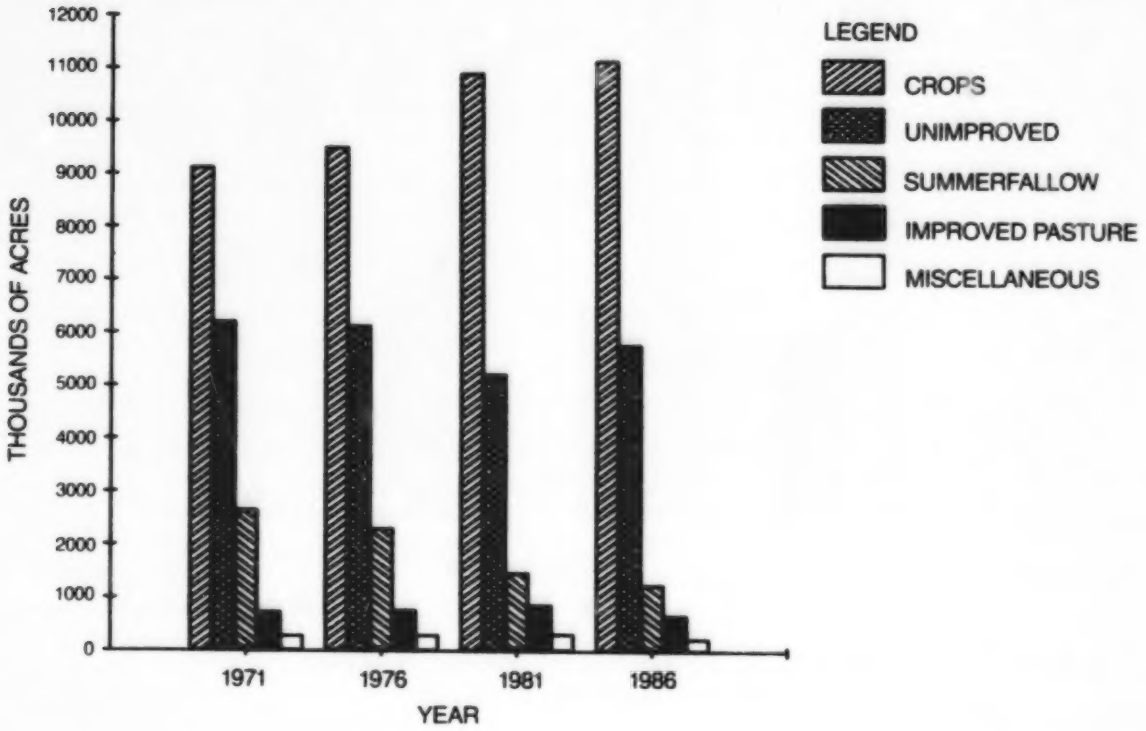
LAND RESOURCE

Manitoba extends 1 225 kilometres (761 miles) from the U.S. border to the Northwest Territories. Its area is 67.6 million hectares (167 million acres). The total land area is 54.8 million hectares (135.5 million acres), of which 14.6 million hectares (36.2 million acres) or 26.7 per cent has some agricultural potential. Over 9.6 million hectares (23.6 million acres) of this area are nonorganic soils, and 5.4 million hectares (13.4 million acres) of these are suitable for sustained annual production of cultivated crops. Land use for agriculture in 1986 (both improved and unimproved land) totalled 7.7 million hectares (19.1 million acres), or over 50 per cent of total lands with agricultural potential. In 1987, 4.6 million hectares (11.3 million acres) were seeded to crops, 0.5 million hectares (1.3 million acres) were summerfallowed and 0.3 million hectares (0.7 million acres) were improved pasture lands. A further 0.04 million hectares (0.1 million acres) of improved land has the potential for annual cultivation.

Further opportunity to expand the agricultural land resource base through greater use of organic soil areas also exists. Approximately 5.1 million hectares (12.6 million acres) of organic soils are in the non-permafrost or fringe agricultural zone of Manitoba. Potentially 0.6 million hectares (1.5 million acres) of these soils could be used for grain or special crop production. Another 0.2 million hectares (0.5 million acres) of organic soils could be easily developed and brought into forage crop production. About 0.2 million hectares (0.5 million acres) of organic soils are currently under cultivation.

GRAPH 1

LAND USE
1971-1986



Datasource: Statistics Canada

FARMS AND FARMERS

In 1986 Manitoba had 27,336 farms with sales of $250 or more. The average farm size was 283 hectares (700 acres). The number of farms declined by 7.2 per cent between 1981 and 1986, reflecting the continued trend towards farm consolidation. In 1986, 63 per cent of Manitoba farmland was operator-owned, while 37 per cent was rented land. The area of rented land had increased by 350 000 hectares (866,000 acres) or 14 per cent since 1981.

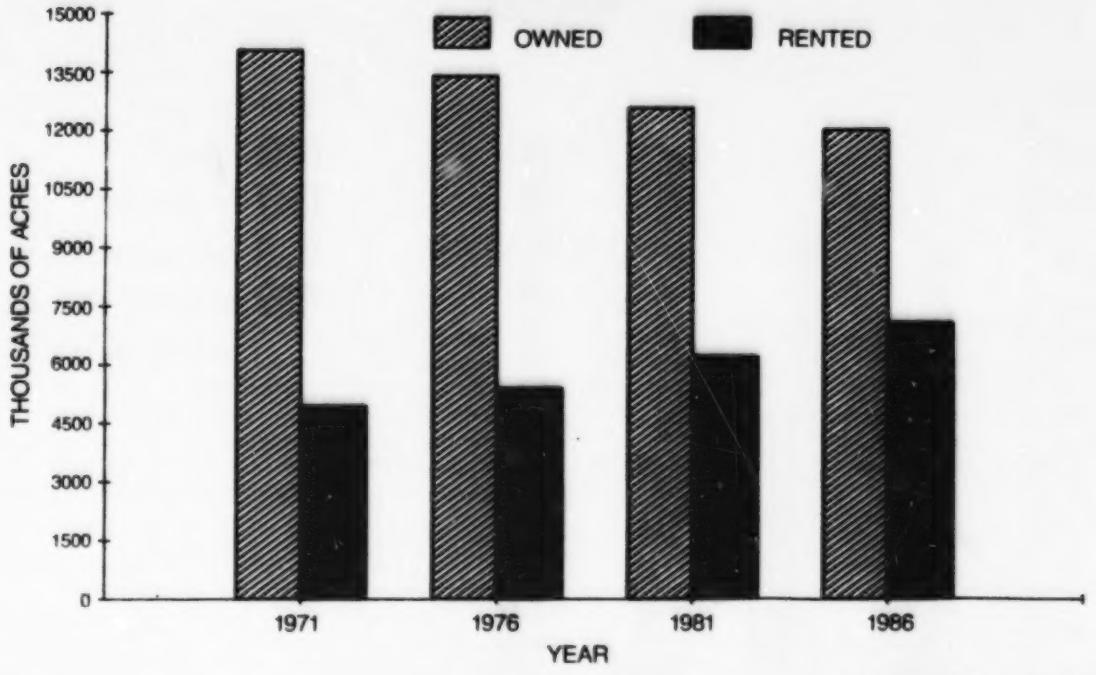
The 1986 Census of Agriculture showed that 22 per cent of farm operators were less than 35 years old, a decrease of three percentage points from the 1981 level. Eleven per cent were 35 to 39, 33 per cent were 40 to 54, and over 33 per cent were 55 years and over. In 1981, 30 per cent of farmers were over 55 years. Although the total number of farm operators declined between 1981 and 1986, the number of producers with sales of $10,000 or more was the same in both years. The total farm population in 1986 was down seven per cent from the 1981 level. Approximately one Manitoban in 12 lived on a farm in 1986 compared with one in ten in 1981.

The 1986 Census showed that Manitoba farmers hired a total of 342,706 weeks of full-time and part-time labour. This represents a 38.3 per cent increase in the number of weeks of hired labour since 1981, and a 28.7 per cent increase in the number of farms reporting hired labour. Over 51 per cent of hired help was employed on a part-time basis. In general, a shift away from year-round hired labour to more seasonal task-specific term employment was evident.

The number of days which farm operators worked off the farm in 1986 totalled 1,536,485 days, a decrease of 4.3 per cent from 1981. During the same period, although the number of farms where the operator reported off-farm employment decreased by 5.7 per cent to total 9,714 in 1986, the proportion of all farms with the operator reporting off-farm work increased from 35.0 per cent in 1981 to approximately 35.5 per cent in 1986. Off-farm employment by Manitoba farmers is common and could continue to expand as labour requirements of the farm decline and as economic conditions pressure producers to find supplementary sources of income. Beginning farmers may also use this as an alternate way of entering full-time farming.

GRAPH 2

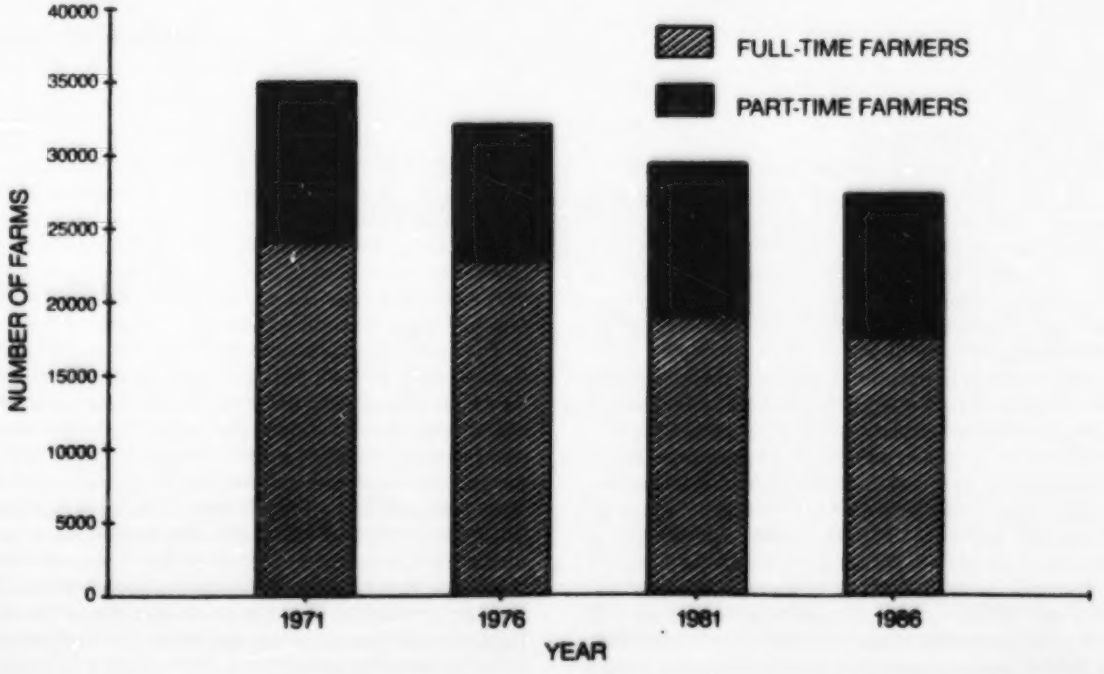
TENURE STATUS OF FARMLAND 1971-1986



Datasource: Statistics Canada

GRAPH 3

FARMS CLASSIFIED BY WORK STATUS OF OPERATOR, 1971-1986



Datasource: Statistics Canada

FARM INCOMES

Farmers have very little control over the prices they receive for most of the commodities they produce. Increasing production costs, dependence on the weather and variable commodity prices make farming a risky business. Realized net farm income (cash flow) in Manitoba increased from $360 million in 1985 to $514 million in 1986 and $555 million in 1987. Preliminary projections indicate that even with further government assistance to grain producers, farmers will net only $485 million in 1988, a decrease of 13 per cent from a year earlier.

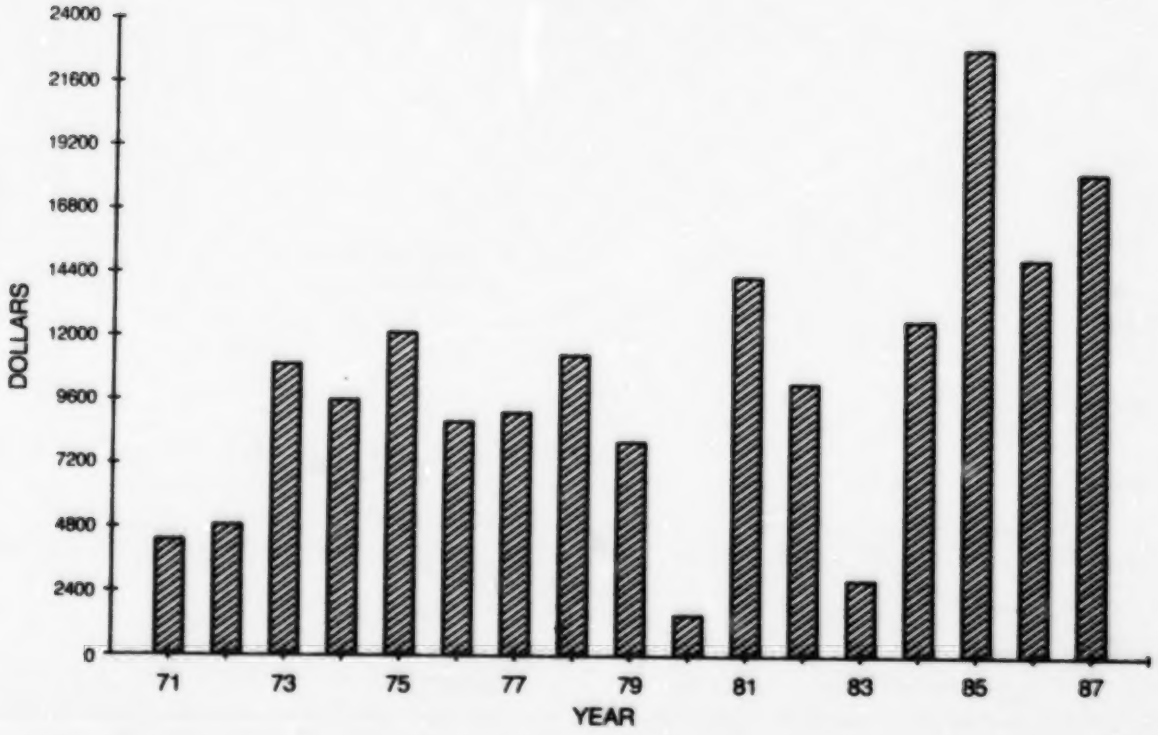
Total net income (net cash income adjusted for inventory change) per farm was $14,207 in 1981. This fell to $2,864 per farm in 1983 and peaked at $22,630 per farm in 1985 due to bumper crops and an inventory build-up. In 1986, total net income averaged $15,410 per farm, due in part to reduced on-farm inventories. Lower grain and oilseed receipts were more than offset by lower costs of production and increased government payments to increase total net income to $18,380 per farm in 1987. Reduced cash receipts and higher farm expenses are expected to result in a drop in net farm income in 1988.

FARM FINANCIAL DIFFICULTIES

High real interest rates, low commodity prices, adverse weather conditions, a declining equity land base in recent years and management problems have all contributed to the current financial difficulties experienced by many Manitoba farmers. In 1986, an estimated 15.2 per cent of Manitoba farmers were in a financial situation which made continued operation uncertain. About 4.6 per cent of all farms were considered nonviable, 5.6 per cent were classified as deteriorating financially, and 5.0 per cent were financially vulnerable. Manitoba's position was considered better than that of Saskatchewan and Alberta, where 16.2 and 15.5 per cent of farmers respectively were in financial difficulties.

GRAPH 4

TOTAL NET INCOME PER FARM
1971-1987



Datasource: Statistics Canada

CAPITAL INVESTMENT

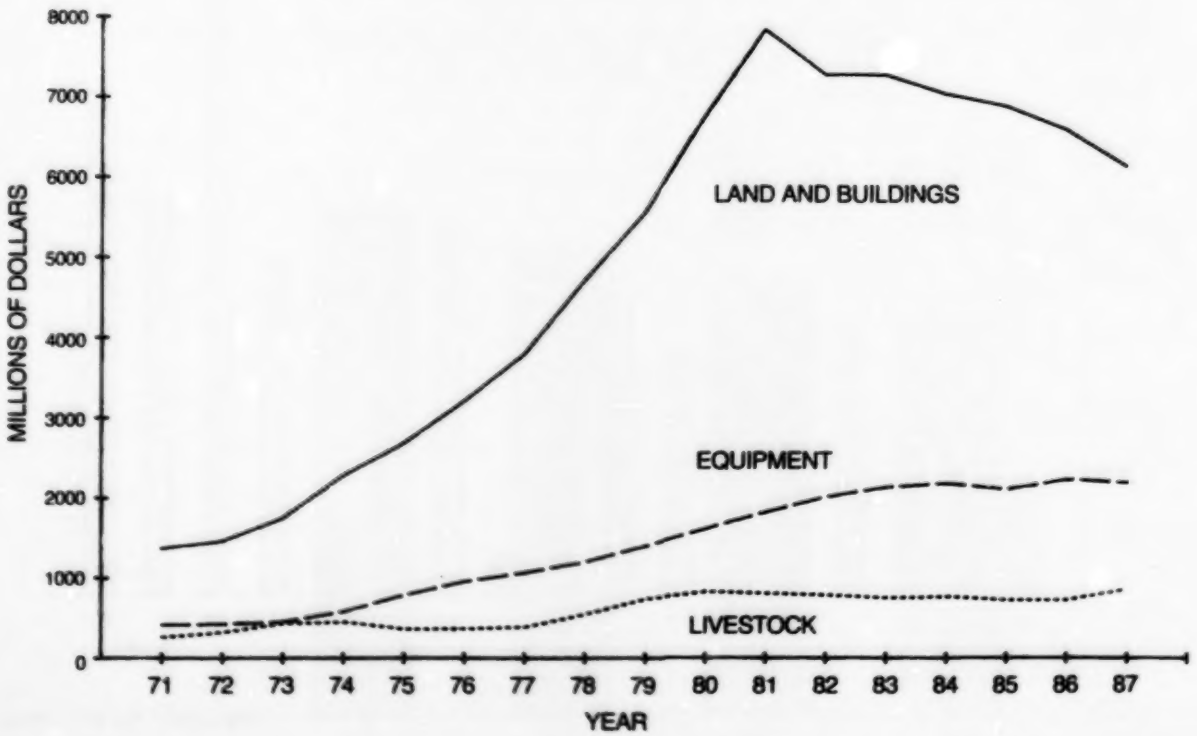
The total value of fixed capital used by Manitoba farmers in 1987 was almost $9.2 billion, or $335,600 per farm operation. This included $6.1 billion (66.7 per cent) for land and buildings, $2.2 billion (23.8 per cent) for machinery and equipment and $0.9 billion (9.5 per cent) for livestock and poultry. Since 1981, when land values peaked, the fixed capital investment in Manitoba agriculture has decreased by over 12 per cent.

A noticeable shift has occurred in the distribution of capital investment. Land and buildings now account for 67 per cent of total investment. This compares with 75 per cent in 1981, and about 70 per cent in 1976 for the same components. The change in the contribution of land to total investment can be attributed to the escalation of land prices in the late 1970s because of increased investment in land, followed by a decrease in land values in the mid-1980s. In 1987, the average value of farm land and buildings in Manitoba was approximately $790 per hectare ($320 per acre), seven per cent below the 1986 level of $850 per hectare ($344 per acre). Between 1971 and 1981, capital investment in Manitoba agriculture more than doubled every five years. However, since 1982, high real interest rates and low commodity prices have slowed capital investment growth in farming. Farm machinery sales in the province have also suffered.

In 1986, the ratio of Manitoba farm debt to capital assets was estimated at 0.195. Manitoba farmers had total assets estimated at $9.54 billion, liabilities of $1.86 billion and a net worth of $7.68 billion. Assuming farm sales are used as a proxy for farm size, then total liabilities as a percentage of total assets increased as the total value of farm sales increased. This percentage rose from a low of 10.9 per cent for small farms (less than $26,500 farm sales) to a high of 20.9 per cent for larger farms (farm sales over $79,700). Chartered banks financed approximately 43 per cent of the total farm debt in Manitoba in 1986. The provincial and federal governments, through agencies such as M.A.C.C. (Manitoba Agricultural Credit Corporation) and the F.C.C. (Farm Credit Corporation), financed 12 and 22 per cent of the provincial farm debt respectively. Credit unions financed 13 per cent of farm debt, while personal sources of credit, along with trust and insurance companies, accounted for nine and 0.5 per cent respectively.

GRAPH 5

CAPITAL INVESTMENT IN AGRICULTURE 1971-1987



Datasource: Statistics Canada

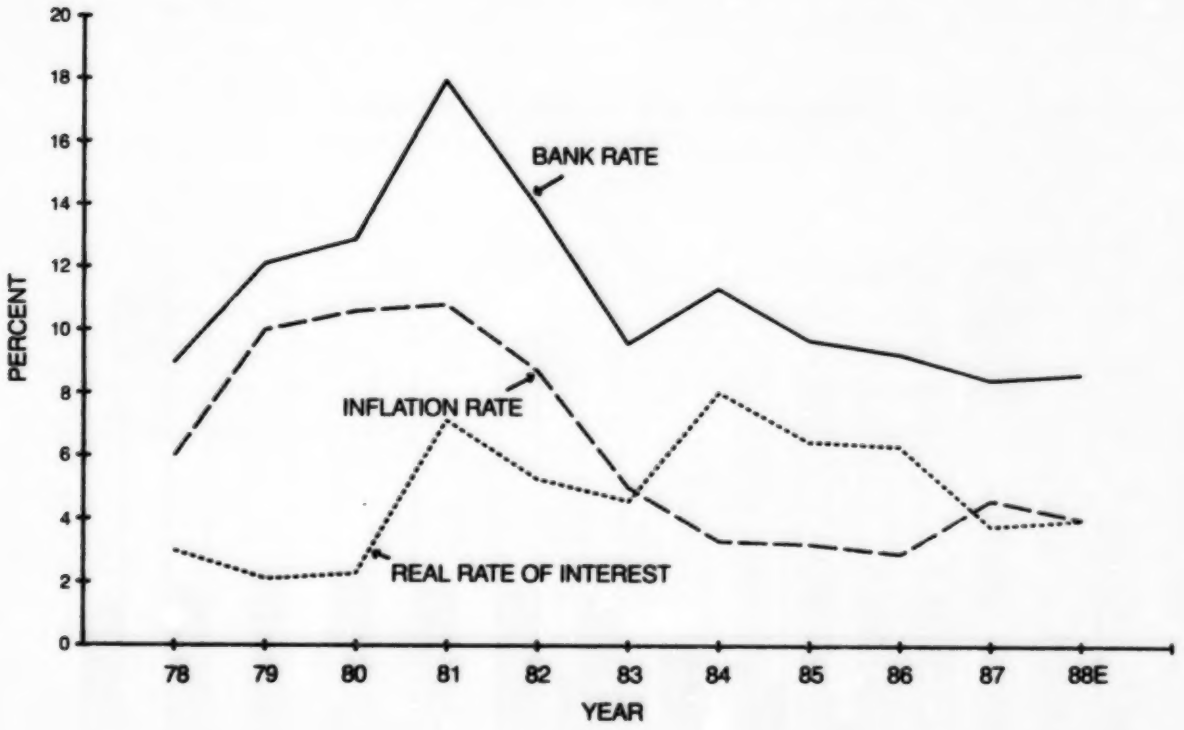
Established farmers who own their land and have low debt-to-asset ratios will likely survive the current economic situation. However, younger beginning farmers or others with low equity, face a more difficult financial situation. New farm operators have limited finances to become established, and their low equity makes them a high risk to lending institutions. In many cases, M.A.C.C. is the only source of financing for these higher-risk farmers.

Of the 265 farmers who had long-term loans approved by M.A.C.C. in 1987, 82 per cent were younger than 35 years. About 26 per cent of those who received loans were less than 25 years old and had an after-loan equity position of 41 per cent of the total capital invested in their farm enterprises. About 56 per cent of farmers were aged between 25 and 35 and had an average equity position of 54 per cent, while those farmers over 35 had an equity position of 50 per cent. Because of weak commodity prices and the high cost of borrowing, farmers with low equity continue to face a serious challenge in continuing their farming operations.

Due to increased financial pressure, some farmers are shifting their debt structure from short and intermediate-term to long-term to ease their repayment burdens. As farms become larger, operating debt financing becomes more important in their cost of operation.

The interest paid on farm debt in 1987 was estimated at $145.0 million. This was down by five per cent from 1986. Interest on debt as a percentage of total farm operating expenditure decreased from 17.6 per cent in 1981 to 11.5 per cent in 1986 and 11.4 per cent in 1987. As interest still forms a significant percentage of total farm operating expenditures, it appears that a high equity position could be as important as operating efficiency to assure continued solvency.

GRAPH 6 **BANK RATE, INFLATION RATE, REAL RATE OF INTEREST 1978-1988**



Datasource: Bank of Canada Review

OTHER AGRICULTURAL EXPENDITURES

Manitoba farmers have substantial operating expenditure requirements for such items as seed, feed, fertilizer and fuel. In 1982, total farm operating expenses (which included operating capital requirements and depreciation) were $1.50 billion. The 1987 total farm operating expense requirement was $1.54 billion, up two per cent from 1982 but down by over three per cent from 1986. It is estimated that 1988 total farm operating and depreciation expenses will increase to over $1.54 billion.

Fertilizer: The total volume of fertilizer sold went from 673 400 tonnes in 1986 to 616 100 tonnes in 1987. Total fertilizer expenditures in 1987 were estimated at $168.7 million, down 15 per cent from 1986. Manitoba farmers used 18 per cent more fertilizer between 1982 and 1987, with fertilizer expenditures rising by only one per cent over the five-year period.

Herbicides: In 1984 and 1985 the level of herbicide use in Manitoba was estimated at 4.3 (9.5) and 3.8 million kilograms (8.4 million pounds) of active material respectively. However, in 1986 the rate of use increased by 25 per cent to over 4.7 million kilograms (10.4 million pounds) of active material. Reduced use of wild oat herbicides contributed to a decrease of 25 per cent in total herbicide use in the province to 3.6 million kilograms (7.8 million pounds) in 1987.

Pesticides: Total pesticide expenditures by farmers in 1987 were estimated at $105.7 million, a decrease of less than one per cent from 1986. This compares with $89.4 million in 1982, and represents an increase of 18.2 per cent over the five-year period.

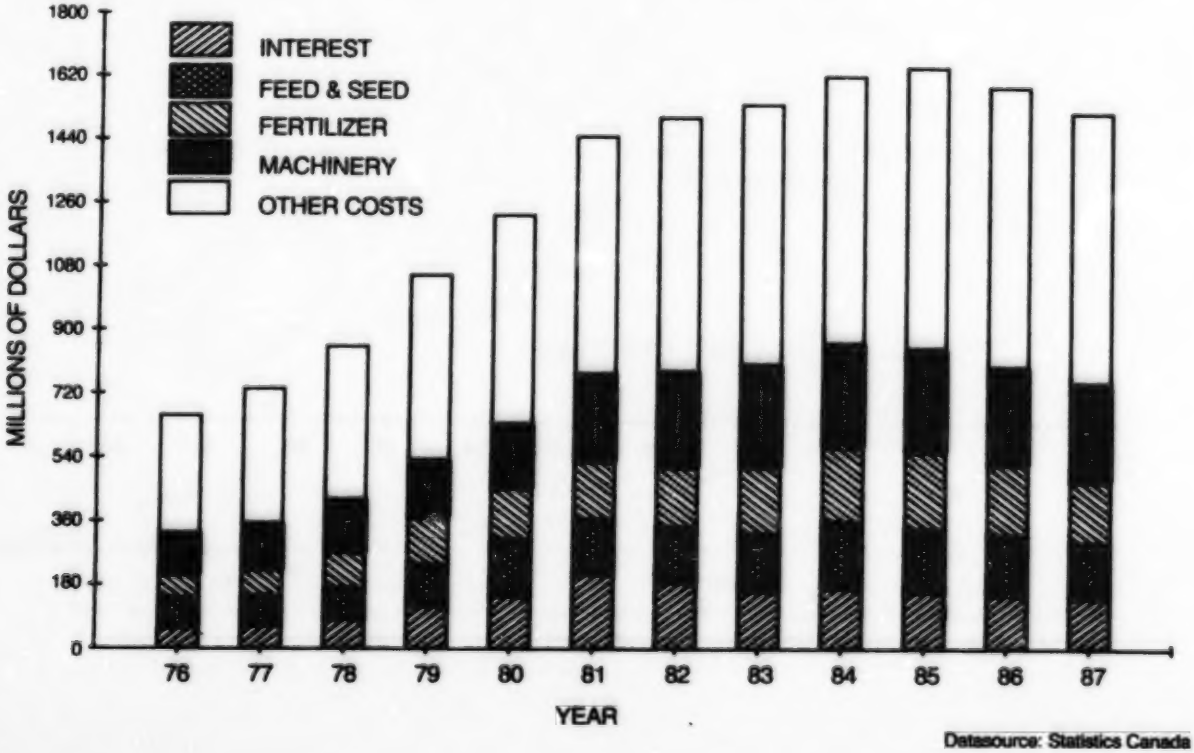
Fuel: The total farm expenditure for diesel, gasoline and lubricants in 1987 was $142.3 million, down slightly from 1986. Farm fuel rose from 10.9 per cent of total farm operating expenses in 1981 to peak at 13.1 per cent in 1983, but declined to 11.1 per cent in 1987. Primary agriculture consumes approximately 18 to 19 per cent of all fossil fuels used in Manitoba.

Machinery: Capital invested in farm machinery and equipment in 1982 was $2.02 billion. In 1987, this value was estimated at $2.2 billion, an increase of almost nine per cent from the 1982 value.

Repairs: In 1982, Manitoba farmers spent $117.7 million on equipment repairs. In 1987, expenditures were estimated at $137.7 million, a five per cent increase from 1986.

GRAPH 7

FARM CASH AND OTHER EXPENSES 1976-1987



Datasource: Statistics Canada

Buildings: Farm expenditure for building repairs in 1987 was $26.7 million, one per cent more than in 1986 and 13 per cent above the 1982 level. Many farm buildings have been fully depreciated, but still remain serviceable.

Livestock: Total livestock and related expenditures by Manitoba farmers in 1987 were estimated at $143.9 million. This is down by one per cent from 1986 expenditures. In comparison, the total expenditure in 1982 was over $146.5 million. Livestock expenses in 1982 were 11.9 per cent of total operating expenditures compared with 11.3 per cent in 1987, when feed costs were significantly lower.

Seed: In 1987, Manitoba farmers spent $43.0 million on seed compared with $40.2 million in 1982 and $47.4 million in 1986. Seed costs in 1986 accounted for 3.6 per cent of total expenditures while in 1987 they were 3.4 per cent of the total.

Other Expenditures: Other farm expenditures include taxes, wages, rentals, insurance, electricity, telephone, etc. Of the total $1.28 billion of farm expenditures in 1987 (excluding depreciation), other expenditures amounted to $364.0 million or 28.5 per cent of the total. This was a decrease of almost three per cent from 1986, mainly due to the 24 per cent drop in farm rental costs. In 1982, other expenditures accounted for $311.2 million, or 25 per cent of the total.

AGRICULTURAL PRODUCTION

Manitoba's farm cash receipts were estimated at $2.07 billion in 1987, a one per cent decrease from the previous year. Almost 53.1 per cent of these receipts were derived from crop production, 38.4 per cent from livestock production and one per cent from the production of honey, fur, forestry products and P.M.U. operations. The remaining 7.5 per cent came from the Special Canadian Grains Program.

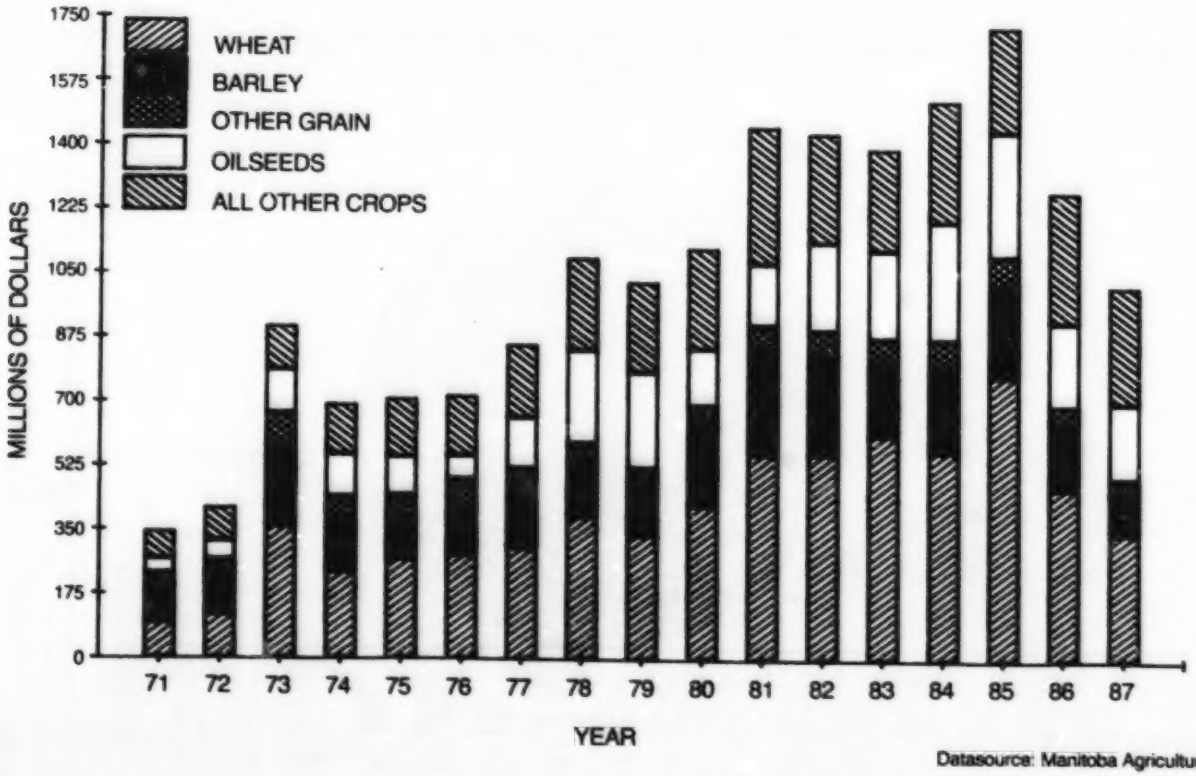
Despite a further increase in net government supplementary, deficiency and stabilization payments to Manitoba farmers in 1988, farm cash receipts during the year are expected to decline by over four per cent from the 1987 level.

CROPS

Although Manitoba has the climate and soil to grow a wide range of crops, the traditional **grain crops of wheat and barley** contributed about one-third of farm cash receipts in 1986. However, with low grain prices, this contribution dropped to less than one-quarter of cash receipts in 1987. Collectively, these two crops occupied over 58 per cent of the 4.6 million hectares (11.3 million acres) of Manitoba cropland in 1987, unchanged from six years earlier. Wheat production was 4.0 million tonnes in 1987, down by 11 per cent from 1986, while production of barley rose by seven per cent to reach almost 2.0 million tonnes.

GRAPH 8

FARM VALUE OF CROP PRODUCTION
1971-1987



Datasource: Manitoba Agriculture

Flaxseed has been a relatively important crop since the 1940's, but other **oilseed crops**, such as canola and sunflowers have gained prominence since the early 1970's. Manitoba's **flaxseed** production, at 429 000 tonnes in 1987, was 54 per cent of the national total, while 85 per cent of Canada's sunflowerseed and 15 per cent of the national canola crop were produced in the province.

Canola production in Manitoba peaked at 635 000 tonnes in 1985 despite a larger area (546 300 hectares) being planted to canola in 1979. The canola acreage remained at 405 000 hectares in 1987, but production increased from 578 000 tonnes in 1986 to 590 000 tonnes in 1987, a rise of two per cent.

Manitoba's **sunflower** acreage peaked at 153 800 hectares in 1979, but, because of lower prices and problems due to weather, disease and insects, declined to 23 100 hectares and 30 400 hectares in 1986 and 1987 respectively. Sunflowerseed production in 1987 was estimated at 44 500 tonnes, only one-fifth of the 1979 production but up by 34 per cent from the 1986 level. Plantings in 1988 are estimated to be up by 20 per cent to 36 400 hectares.

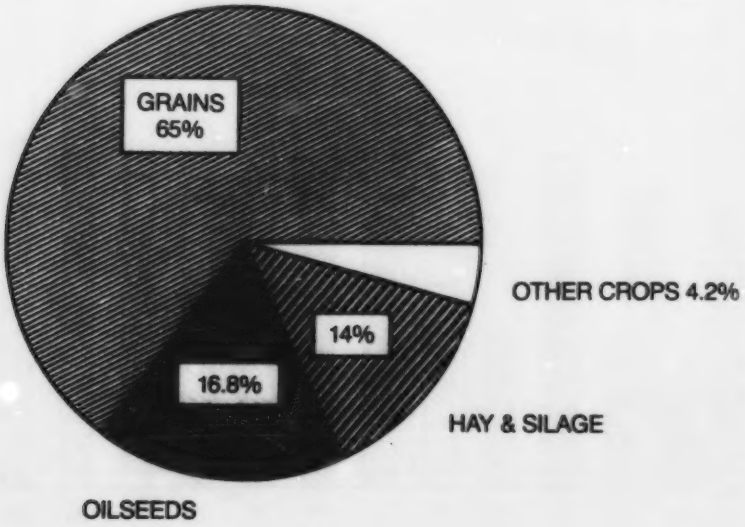
The mix of crops and area seeded each year depends to a large extent on anticipated market prices relative to production costs. The area seeded to wheat in the province in 1988 is expected to increase by 0.7 per cent to 1.99 million hectares. Due to low barley prices and a large carryover of stocks, Manitoba farmers are expected to decrease the area planted to barley to 607 000 hectares. Plantings of the two major oilseeds, canola and flax, are expected to increase in response to improved prices.

Manitoba is not only an important source of grains and oilseeds, but is a major area for the production of **special crops** in Canada. One of the two major buckwheat-producing provinces, Manitoba supplied almost 46 per cent of the Canadian crop in 1987 with an estimated value of $5.3 million. Manitoba dry field pea production, valued at $38 million, was estimated at 31 per cent of the national crop in 1987, while 41 per cent of Canada's sugar beets, 11 per cent of the lentils and 6 per cent of the mustard seed were produced in Manitoba. Overall, special crop plantings in 1988 (excluding corn) are expected to be above the 1987 level, mainly due to increased areas of field peas, mustardseed and fababeans offsetting decreased areas of buckwheat, lentils and field beans. Manitoba's grain corn area is expected to increase by 29 per cent to 36 400 hectares in 1988.

Manitoba's vegetable industry, although still relatively small compared to the major producing provinces of Ontario and British Columbia, has grown in importance over the years, particularly in terms of employment and import substitution. Manitoba had 148 potato producers, 37 major vegetable producers and over 250 market gardeners who employed more than 2,000 full-time and seasonal farm workers in 1987. Potato and vegetable production was worth $62 million. In addition, the production of fruit, mushrooms, flowers, nursery products and sod in Manitoba amounted to over $38 million in 1987.

GRAPH 9

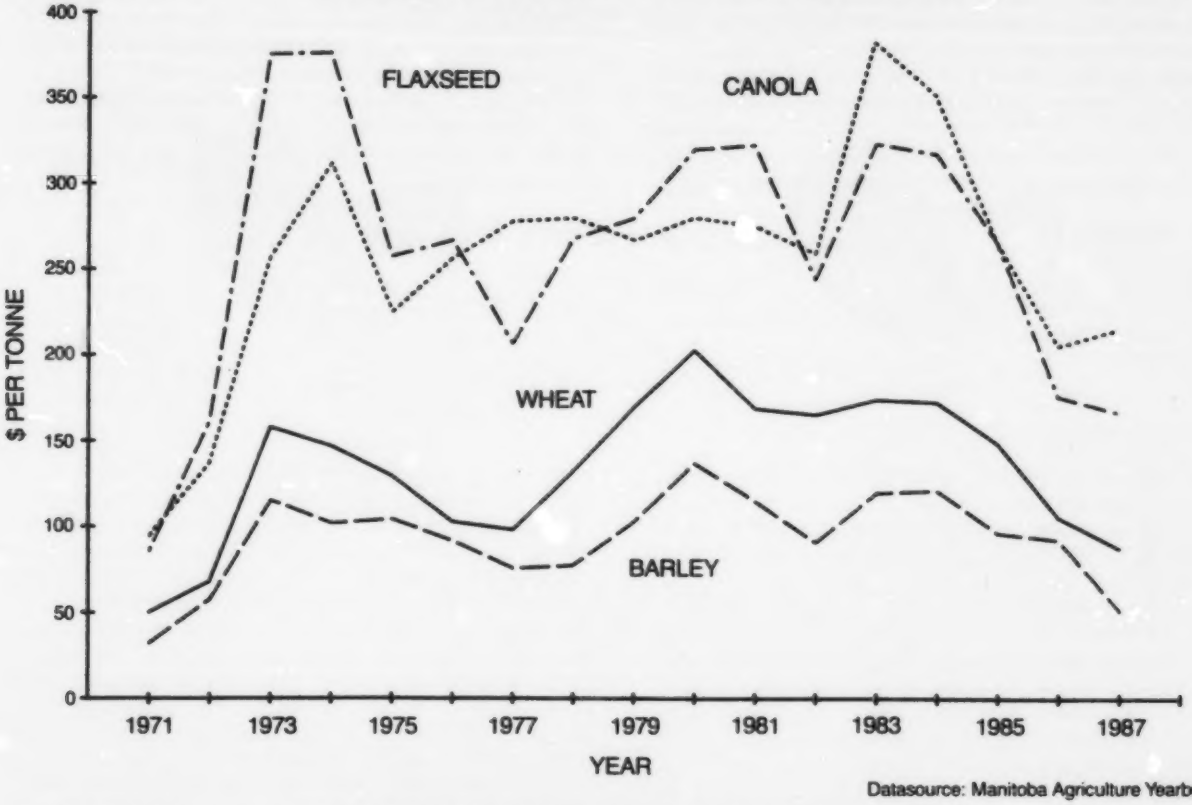
AREA OF CROPS PLANTED IN MANITOBA 1987



Datasource: Statistics Canada

GRAPH 10

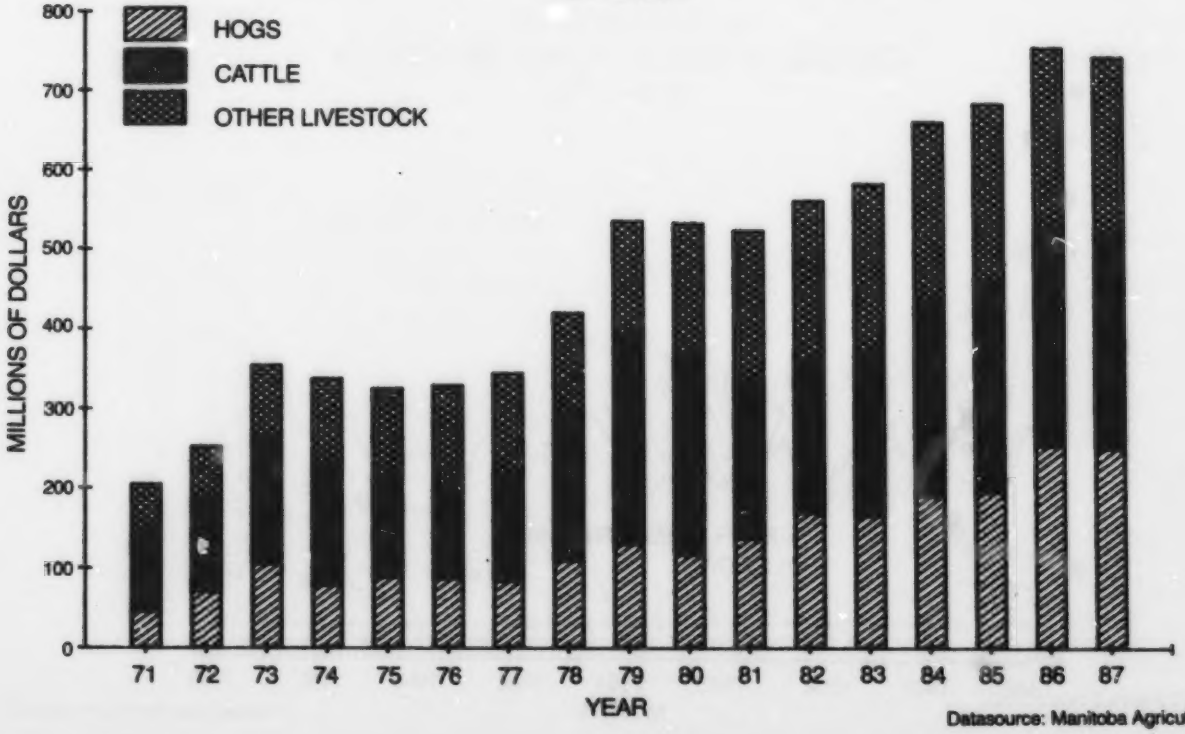
PRICES OF SELECTED CROPS, 1971-1987



Datasource: Manitoba Agriculture Yearbook

GRAPH 11

FARM VALUE OF LIVESTOCK PRODUCTION 1971-1987

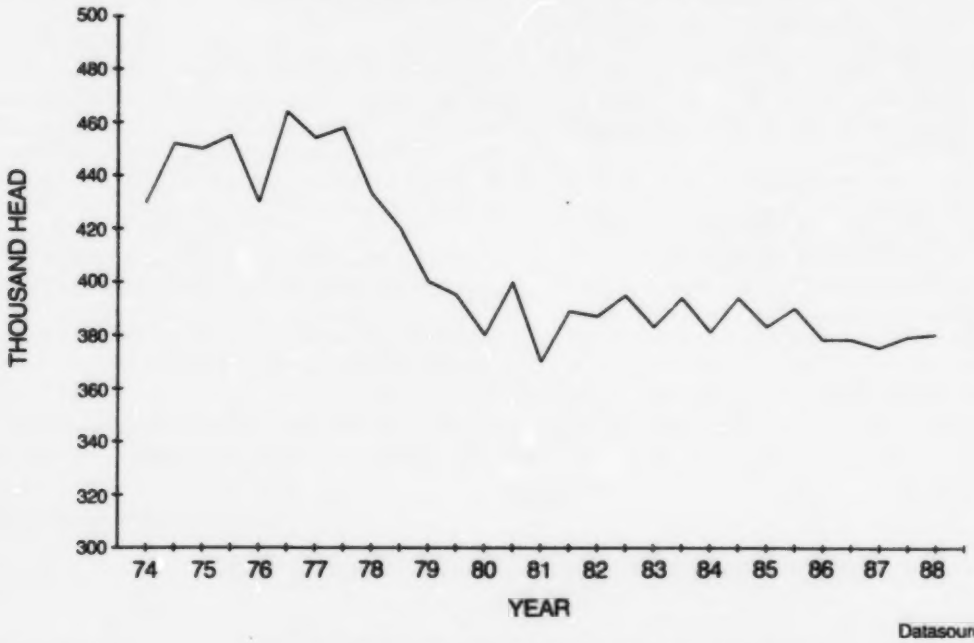


Datasource: Manitoba Agriculture

LIVESTOCK

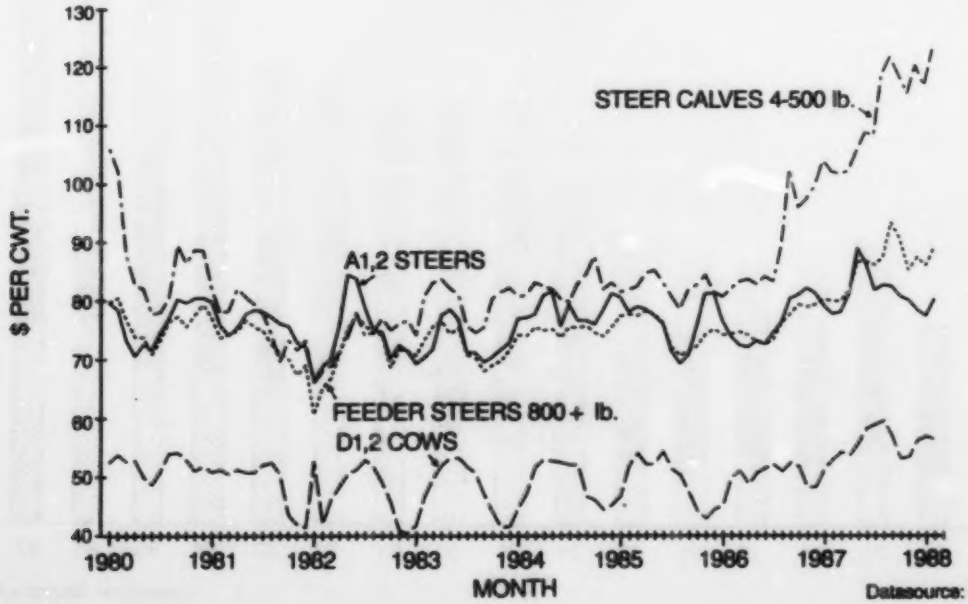
The livestock industry in Manitoba contributed 38.4 per cent of the total farm cash receipts in 1987, up from 36.8 per cent in 1986, but down from 38.9 per cent, the average of the previous ten years. Marketings of cattle and calves amounted to almost 40 per cent of livestock product value, and provided 15 per cent of total 1987 farm cash receipts. This made beef the second largest farm commodity next to wheat. The province has over eight per cent of all cattle and calves in Canada, over 11 per cent of the beef cows, over four per cent of the dairy cows, 11 per cent of the hogs, three per cent of the sheep and lambs, seven per cent of the hens and chickens, nine per cent of the turkeys, 95 per cent of the geese, four per cent of the ducks and 11 per cent of the egg production. Only four per cent of Canada's population lives in Manitoba, thus the province is a surplus supplier of most livestock products.

GRAPH 12 **BEEF COWS ON FARMS, 1974-1988**



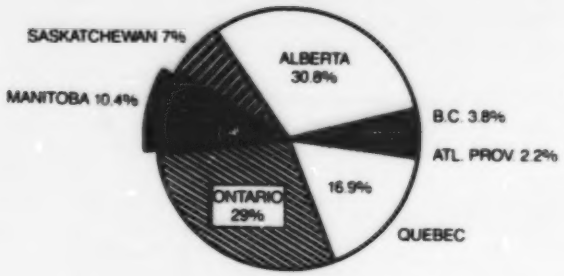
Datasource: Statistics Canada

GRAPH 13 **WINNIPEG CATTLE PRICES BY MONTH 1980-1988**

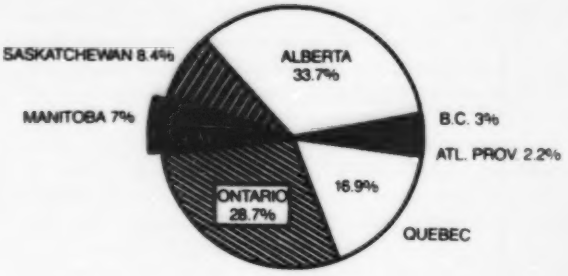


Datasource: Agriculture Canada

GRAPH 14 FEDERAL/PROVINCIAL CATTLE SLAUGHTER BY PROVINCE, 1986 and 1987



1986



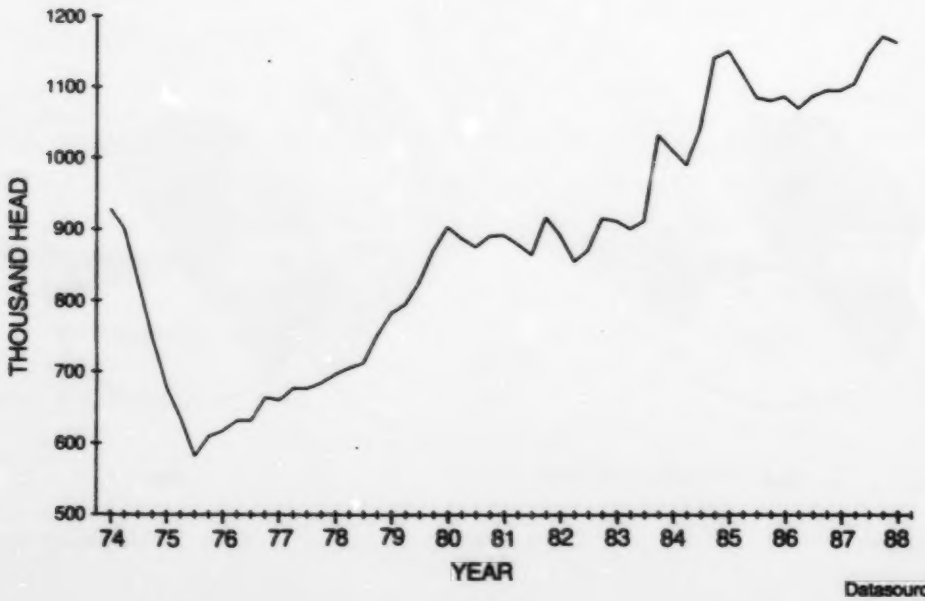
1987

Datasource: Agriculture Canada

Prices in Manitoba for both cattle and hogs are dependent on prices in the United States and, to a lesser extent, in eastern Canada. Thus local prices tend to be variable, depending on the supply and demand for red meats particularly in the major markets of the U.S., Ontario and Quebec. This situation makes management decisions difficult for local producers, who tend to suffer from price and income instability. Declining North American per capita beef consumption (since the peak year of 1976), and variable profitability from beef production have resulted in a decline in the Manitoba **cattle** herd during the past eleven years. Although total cattle marketings in the province continued to decline in 1985, 1986 and 1987, the number of Manitoba-origin cattle and total cattle slaughtered in Manitoba packing plants increased by over 10 per cent from 1984 to 1985. Total cattle slaughterings increased by a further 12 per cent to 380,900 head in 1986. However, the closing of Canada Packers' slaughter facility in April, 1987 reduced local slaughter capacity by about 40 per cent; Manitoba inspected slaughter fell by 37 per cent to 241,600 head in 1987.

Manitoba **hog** marketings rose to 1,352,000 head in 1971, but decreased to 835,000 head in 1976. Price stabilization plans introduced since 1981 encouraged herd expansion and by 1987, Manitoba hog marketings had reached over 1.7 million head with a value of $253 million. Manitoba's share of the Canadian hog market declined from 13 per cent in 1971 to less than nine per cent in 1982 as hog production shifted to the central Canadian provinces, particularly Quebec. However, by the end of 1987, Manitoba's share of national marketings had increased to 11.5 per cent.

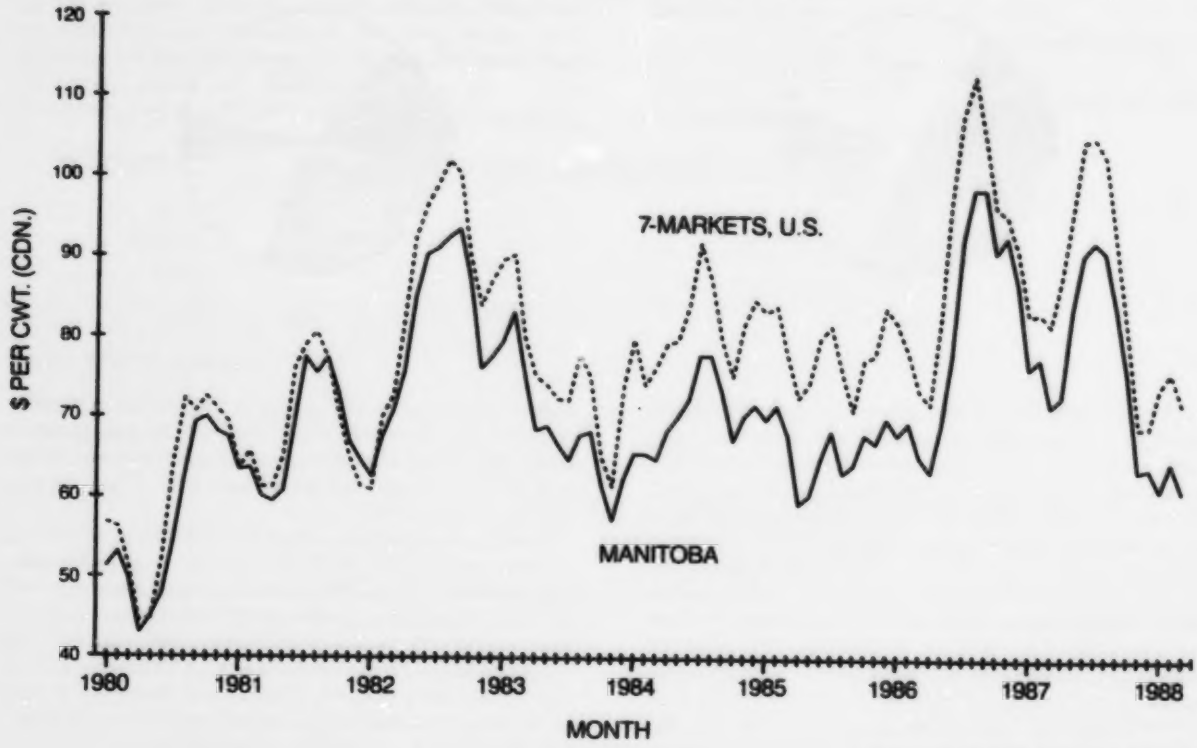
GRAPH 15 HOGS ON FARMS BY QUARTER, 1974-1988



Datasource: Statistics Canada

GRAPH 16

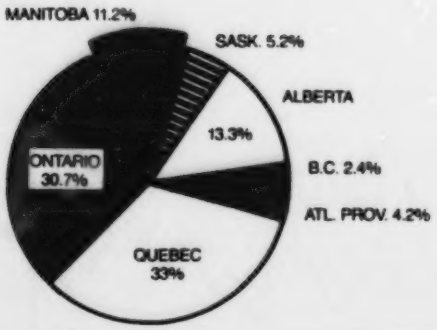
HOG PRICES BY MONTH, 1980-1988
Index 100 dressed weight



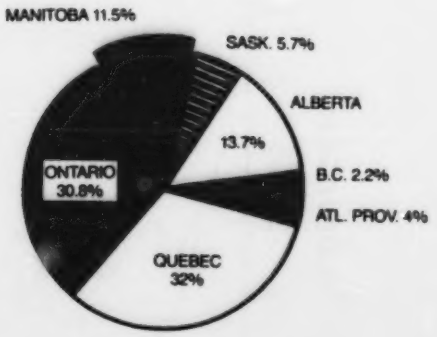
Datasource: Agriculture Canada & U.S.D.A.

GRAPH 17

HOG SLAUGHTER BY PROVINCE OF ORIGIN
1986 and 1987



1986



1987

Datasource: Agriculture Canada

The **sheep** industry is much smaller than that of cattle and hogs. The number of sheep on Manitoba farms peaked at 81,300 head in 1981, but declined to 24,000 head in 1987. Only about 40 to 50 per cent of the sheep produced in Manitoba are slaughtered in inspected packing plants located in the province. A large number of producers sell their product privately to the consumer.

In 1987, Manitoba's 70,000 **dairy** cows produced milk and cream valued at $121.3 million (including supplementary payments). This was an increase of 3.3 per cent from the 1986 level.

Farm receipts from **poultry and eggs** produced in the province amounted to $98.5 million in 1987, up slightly from the previous year.

AGRICULTURAL TRADE

Much of Manitoba's agricultural exports are shipped in the unprocessed or semi-processed state, either to other provinces, as in the case of livestock and meat, or to other countries, as in the case of grains and oilseeds. Manitoba uses about 12 per cent of the wheat and almost 50 per cent of the barley produced in the province, the remainder being exported to eastern Canadian markets or overseas. About 35 per cent of Manitoba slaughter cattle and approximately 78 per cent of the hogs marketed in 1987 were sent out of the province, either live or in a processed state. Over 53 per cent of the turkey, almost all the chicken and about 48 per cent of the eggs produced in the province in 1987 were consumed locally. Less than one per cent of Manitoba's eggs were exported to other countries as most out-of-province shipments went to other Canadian provinces. Almost 90 per cent of Manitoba geese are shipped to other provinces, the United States, West Germany and Switzerland. In 1987, about $147 million of Manitoba livestock and livestock products were sent out of the country, while over $930 million of unprocessed grains, oilseeds and special crops were exported. Grain exports are one of the largest single sources of foreign exchange earnings for Canada.

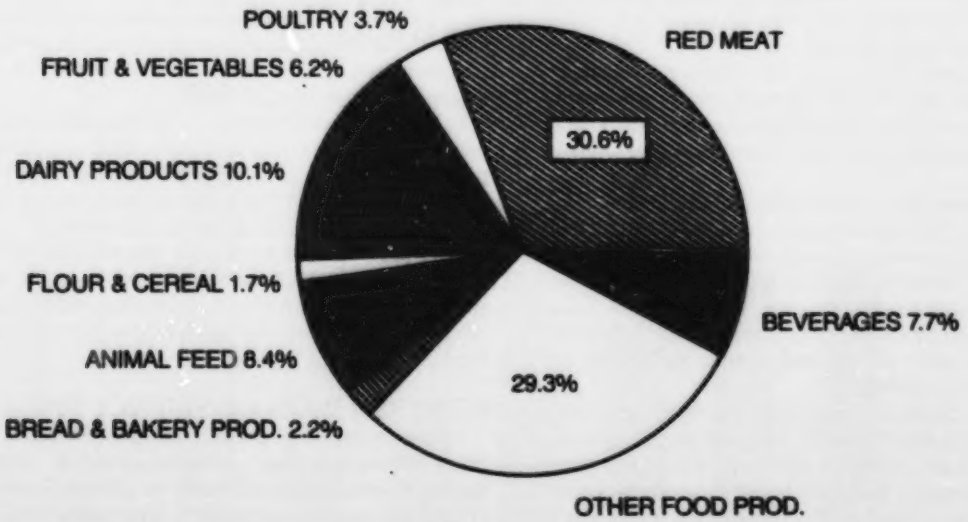
Canada imported $117 million worth of cheese, $665 million of fresh vegetables, $163 million of processed vegetables, $207 million of cereal and bakery products, and $543 million of meat and meat products in 1987, much of which should have been produced in Canada and, possibly, Manitoba. However, in many instances, given the lower labour costs and better weather conditions in exporting countries, it may not be economically feasible to reduce imports of some foods, such as fresh vegetables in winter.

IMPACT OF AGRICULTURE ON THE PROVINCIAL ECONOMY

While the relative importance of primary agriculture in the provincial economy has varied significantly over the past ten years, the total economic impact of the agricultural industry has been positive.

GRAPH 18

MANITOBA FOOD AND BEVERAGE PROCESSING INDUSTRY, 1985



1985

Datasource: Statistics Canada

CONTRIBUTION OF FOOD PROCESSING

The food and beverage processing industry includes the slaughtering and / or processing of meat and poultry, fruit and vegetables, cereal products, dairy products, vegetable oils, feed, seed, sugar and beverages. It is the most important manufacturing industry in Manitoba, producing $2.33 billion of goods and services in 1985, or about 37 per cent of the total manufacturing output in the province. In 1985, the food and beverage processing industry employed 10,046 administrative, production and related workers with wages of $242.6 million. Over $1.77 billion worth of inputs went into the industry in 1985 and generated an added value of $526 million.

The largest sector is that of meat and poultry slaughtering and processing, which employed almost 3,610 people with wages totalling $86 million in 1985. The principal raw inputs, cattle and hogs, account for over 80 per cent of the meat processing industry's total cost of materials and supplies of $659 million. Ninety-nine per cent of the hogs and 72 per cent of the cattle slaughtered in the province in 1987 originated in Manitoba. Over 60 per cent of the sector's output consists of fresh pork and beef, while other processed meats comprise over 20 per cent.

Technological changes in the production of processed meats are mainly responsible for the continuing rationalization of the meat packing industry. A new hog slaughtering and processing plant, built at Neepawa, began operations in October, 1986. Canada Packers' closed its slaughter plant in early 1987, which reduced Manitoba's slaughter capacity by about 40 per cent. There has been some consolidation of turkey and chicken slaughterings as well as increased productivity in recent years. In 1987, Manitoba continued to produce deboned turkey meat to supply part of the growing consumer demand for this product, particularly in Japan. The increase in the production and slaughtering of waterfowl in the province has decreased concerns about plant overcapacity.

Other important Manitoba food processing sectors include dairy, bakery, animal feed, beverage and fruit and vegetable processing. The province's feed industry output was over $196 million, employing 566 administrative and production staff in 1985. Principal inputs for the industry are barley, wheat, meat meal, corn and canola meal. Much of the corn and canola meal produced in Manitoba is used locally by the feed industry. Soybean meal is imported from the United States.

Manitoba has two oilseed crushing plants located at Altona, and Harrowby on the Saskatchewan border. Almost all the sunflowerseed and canola crushed at the Altona plant comes from Manitoba. Output from the plants include bulk crude and refined oil, bulk vegetable oil, retail pack refined oil, hulls and screenings. About 85-90 per cent of the total production from the Altona plant is marketed outside the province, primarily in central Canada.

The Manitoba Sugar Company plant employs approximately 250 full and part-time staff. The plant processes only Manitoba sugar beets, with the entire provincial crop produced under contract to the plant. In 1987, provincial sugar beet production amounted to 394 000 tonnes, an increase of almost 13 per cent from the 1986 level of 350 000 tonnes. The primary product of the plant is granulated white sugar, marketed in either liquid or dry form as part of an extensive line of sugar products. Approximately 50 per cent of the product is used directly by consumers, most of whom are in Manitoba. By-products include beet pulp and molasses used for livestock feed and industrial purposes, much of which is exported from the province.

The distillery at Gimli employs approximately 90 people and uses about 38 100 tonnes (1.5 million bushels) of grain corn annually. Establishment of the plant at Gimli was based on the availability of high quality and abundant supplies of water and the use of Manitoba-grown grain corn. Between 1980 and 1984, Manitoba farmers supplied the bulk of the high quality corn required by the distillery. In 1985 and 1986 Manitoba grain corn production and quality was poor which resulted in virtually all the corn requirements for the distillery being met by U.S. suppliers. However, in 1987 increased producer interest in growing corn resulted in a larger portion of the distillery corn requirements being met by Manitoba supplies.

CONTRIBUTION OF AGRICULTURAL INDUSTRIES

In 1985, there were 33 implement manufacturing companies directly associated with agriculture. The companies employed 2,151 workers, paid $51.1 million in wages and salaries and produced $197.6 million worth of equipment. In the manufacture of implements, the companies in turn purchased $122.0 million in inputs and contributed $68.2 million in value added to the final product. While the total value of this contribution to the provincial economy is not solely attributable to Manitoba agriculture, it nonetheless does indicate the significance of this sub-unit to the agricultural sector of the provincial economy.

In addition to the 33 companies directly linked to agricultural equipment manufacturing, there are a considerable number of firms more indirectly associated with the agriculture equipment industry. These firms produce inputs for agriculture as a secondary output of their operation or as an input into a larger agricultural manufacturing operation. The total value of this contribution to the agriculture sector in 1985 was estimated at $160 million. The associated labour force was estimated at over 1,300.

In Manitoba there were 426 licensed dealer establishments selling farm machinery and associated equipment and providing service facilities in 1987. In addition, 51 licensed vendors supplied farm machinery and equipment repair parts to licensed dealers in the province. A number of unlicensed facilities provide repair services for farm equipment. Although statistics are not available on the total value of sales and servicing by this unit, it would nonetheless make a further significant contribution to the agriculture sector of the provincial economy.

CONTRIBUTION OF SERVICE SECTOR

Manitoba agriculture depends on various service industries. Some of these industries include transportation, construction, finance, insurance and real estate. An estimated eight per cent of total provincial transportation expenditures involved the movement of agricultural products, raw or processed. About eight per cent of Manitoba's construction takes place on farms

or is for agriculture-related industries. Farm expenditures on financial, insurance or real estate services amount to approximately 12 per cent of total expenditures for these services in Manitoba. In addition, both federal and provincial governments provide services to farmers such as extension, regulatory, research, development, financial and infrastructural. Manitoba farms used 9.9 per cent of the total electric power and about half of the chemicals consumed in the province in 1987.

Although some of the food consumed by Manitobans is imported from other provinces or countries, most of the food sold by grocery and other food stores in the province is derived from products grown and processed in Manitoba. Thus, a portion of the retail margins from these stores can be included with agriculture's contribution to the provincial economy. In 1987 Manitoba's 1,249 grocery and other food stores had over $1.45 billion in total sales volume, an increase of 5.6 per cent from the previous year. Gross margins and net profits amounted to about 23 per cent ($330 million) and 1.9 per cent ($28 million) respectively. Based on family food expenditure data, almost 60 per cent of foods purchased from Manitoba stores are grown and processed in the province. From this it can be estimated that 60 per cent ($200 million) of value added to foods purchased by retailers is an indirect contribution of Manitoba agriculture to the economy. Food wholesaling activities also contribute to the economy.

TOTAL IMPACT OF AGRICULTURE

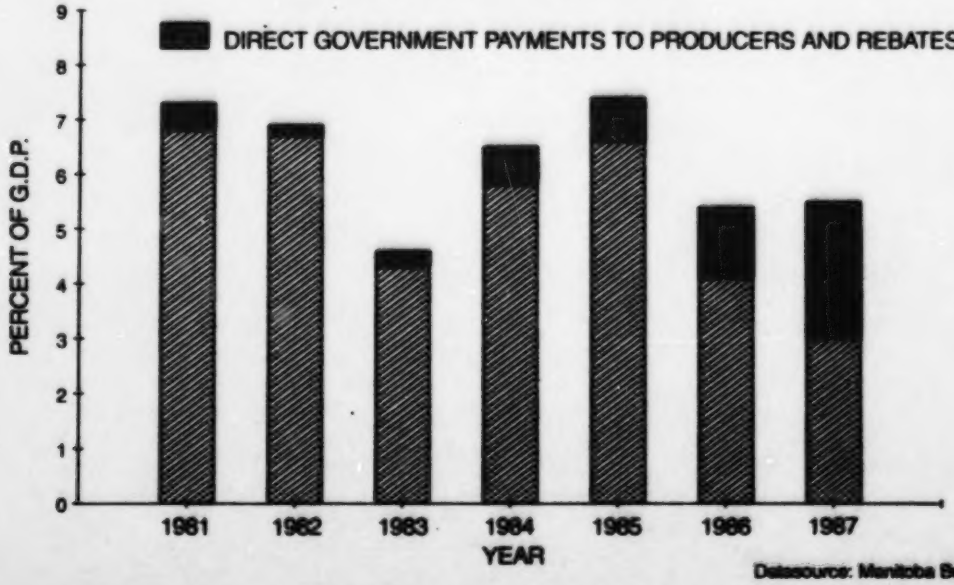
One measure of provincial output is the Gross Domestic Product at factor cost, basically an aggregate of net profits and incomes, including wages, depreciation and investment income. Agriculture's direct contribution to the G.D.P. increased to 10.4 per cent in 1973, but declined to 7.8 per cent in 1976, 7.3 per cent in 1981, 6.9 per cent in 1982 and 4.6 per cent in 1983. Net farm income improved and primary agriculture's contribution to the G.D.P. rose to 6.5 per cent in 1984 and to 7.4 per cent in 1985, but declined to 5.4 per cent in 1986. The increased government assistance to grain producers resulted in a contribution to the G.D.P. of 5.5 per cent in 1987. Without this increased assistance, the contribution would have been 4.1 per cent.

Agriculture also makes an indirect contribution to the provincial economy through income derived from agriculture-connected industries. These include the food processing industry, industries which supply inputs to agriculture, as well as the wholesale, retail and other service sector components which supply services to farmers and agriculture-related workers. When agriculture's indirect contribution to the G.D.P. was added to its direct contribution, an estimated 12.5 per cent of Manitoba's G.D.P. was attributed to agriculture in 1987 compared to 12.6 per cent in 1986 and 15.9 per cent in 1985. For every dollar of net income produced by primary agriculture in Manitoba, $1.62 is generated in the overall Manitoba economy. Agriculture, directly or indirectly, accounted for about one dollar in eight of production in Manitoba's economy in 1987.

Another method of assessing the impact agriculture has on the provincial economy is to compare the added value for agricultural inputs to that for the goods producing sector as a whole in Manitoba. In 1987, 19.7 per cent of total added value was provided by agriculture compared with 19.5 per cent a year earlier.

There were 41,000 persons directly employed in agriculture in Manitoba in 1987. In addition, 34,000 persons were employed in other areas of the provincial economy as a direct result of the agricultural industry, bringing total employment generated by agriculture to 15.1 per cent of Manitoba's labour force in 1987. This means that about one job in seven was the result of agricultural production. For every job lost on farms in 1987, almost one job was lost in other areas of the Manitoba economy. In addition to stimulating employment locally, agriculture in Manitoba is directly responsible for about 27,000 jobs in other parts of Canada.

GRAPH 19 **CONTRIBUTION OF PRIMARY AGRICULTURE TO MANITOBA G.D.P. 1981-1987**



Datasource: Manitoba Bureau of Statistics